AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A pedestrian navigation device constituted in a mobile phone for navigating a pedestrian route, comprising in particular:

position information receiving means that acquires position information from the Global Positioning System (GPS);

position information analyzing means that analyzes the position information received by the said position information receiving means to calculate a present position;

map information storing means that stores map information received from a server that provides navigation information;

central processing means that calculates present position information based on the present position calculated by the said position information analyzing means and the map information stored in the said map information storing means; and

vibrating means that generates a vibration guide based on the present position information calculated by the said central processing means.

2. (original) A pedestrian navigation device constituted in a mobile phone for navigating a pedestrian route, comprising:

position information receiving means that acquires position information from the GPS system;

position information analyzing means that analyzes the position information received by the said position information receiving means to calculate a present position;

map information storing means that stores map information received from a server that provides navigation information;

central processing means that calculates present position information based on the present position calculated by the said position information analyzing means and the map information stored in the said map information storing means;

vibrating means that generates a vibration guide based on the present position information calculated by the said central processing means; and

vibration pattern storing means that stores vibration patterns of the vibration guide generated by the said vibrating means, characterized in that:

the central processing means determines a vibration pattern corresponding to the present position information derived from among the vibration patterns stored in the said vibration pattern storing means; and

the said vibrating means generates the vibration guide based on the vibration pattern determined by the said central processing means.

3. (original) The pedestrian navigation device according to claim 2, characterized in that the vibration pattern refers to the period of vibration of the vibration guide generated by the said vibrating means.

4. (original) The pedestrian navigation device according to claim 2, characterized in that the vibration pattern refers to the intensity of the vibration guide generated by the said vibrating means.

5. (original) The pedestrian navigation device according to claim 2, characterized in that the vibration pattern comprises a combination of patterns represented by the period of vibration and intensity of the vibration guide generated by the vibrating means.

6. (currently amended) A pedestrian navigation system comprising:

a pedestrian navigation device constituted in a mobile phone for navigating a pedestrian route;

a server that provides the said pedestrian navigation device with navigation information; and

a network that permits the said pedestrian navigation device and the said server to communicate with each other, characterized in that:

the pedestrian navigation device is the pedestrian navigation device according to ~~any of claims 1 to 5~~ claim 1.

7. (original) A pedestrian navigation system comprising:

a pedestrian navigation device that is constituted in a mobile phone for navigating a pedestrian route;

a server that provides the said pedestrian navigation device with navigation information; and

a network that permits the said pedestrian navigation device and the said server to communicate with each other, characterized in that:

the said pedestrian navigation device is the pedestrian navigation device according to claim 2, and downloads the vibration pattern from the said server.

8. (currently amended) The pedestrian navigation system according to claim 6 ~~or claim 7~~, characterized in that the said network is the Internet or an intranet.

9. (original) A pedestrian navigation method for navigating a pedestrian route, characterized by the following steps:

(A) position information is acquired from the GPS system;

(B) the acquired position information is analyzed to calculate the user's present position;

(C) present position information is calculated based on the calculated present position of the user and map information received from a server that provides navigation information; and

(D) vibration is generated based on the calculated present position information.

10. (original) The pedestrian navigation method according to claim 9, characterized in that the said step (D) determines a vibration pattern corresponding to

the present position information from among a number of vibration patterns arranged in advance, and a vibration guide is generated based on the vibration pattern.

11. (original) The pedestrian navigation method according to claim 10, characterized in that, in the said step (D), the vibration pattern refers to the period of vibration of the vibration guide generated.

12. (original) The pedestrian navigation method according to claim 10, characterized in that, in the said step (D), the vibration pattern refers to the intensity of the vibration guide generated.

13. (original) The pedestrian navigation method according to claim 10, characterized in that, in the said step (D), the vibration pattern comprises a combination of patterns represented by the period of vibration and intensity of the vibration guide generated by the vibrating means.

14. (currently amended) A program that induces a mobile phone to navigate a pedestrian route, wherein the mobile phone performs the function of the pedestrian navigation device according to ~~any of claims 1 to 5~~ claim 1.

15. (currently amended) A program that induces a mobile phone to navigate a pedestrian route, wherein the mobile phone performs the function of processing carried

out by means of the pedestrian navigation method according to ~~any of claims 9 to 13~~ claim 9.

16. (original) A pedestrian navigation device constituted in a mobile phone for navigating a pedestrian route, comprising in particular:

position information receiving means that acquires position information from the GPS system;

position information analyzing means that analyzes the position information received by the said position information receiving means to calculate a present position;

map information storing means that stores map information received from a server that provides navigation information;

central processing means that calculates present position information based on the present position calculated by the said position information analyzing means and the map information stored in the said map information storing means;

vibrating means that generates a vibration guide based on the present position information calculated by the said central processing means; and

voice guide output means that outputs a guide voice based upon the present position information calculated by the said central processing means.

17. (original) A pedestrian navigation device constituted in a mobile phone for navigating a pedestrian route, comprising:

position information receiving means that acquires position information from the GPS system;

position information analyzing means that analyzes the position information received by the said position information receiving means to calculate a present position;

map information storing means that stores map information received from a server that provides navigation information;

central processing means that calculates present position information based on the present position calculated by the said position information analyzing means and the map information stored in the said map information storing means;

vibrating means that generates a vibration guide based on the present position information calculated by the said central processing means; and

voice guide output means that outputs a guide voice based on the present position information calculated by the said central processing means, characterized in that:

the said voice guide output means outputs the guide voice after a predetermined delay from the time the vibration guide is generated.

18. (original) The pedestrian navigation device according to claim 17, characterized in that the said voice guide output means adds either a soundless (voiceless) section, a sound effect, or a melody for a predetermined period at the onset of the guide voice.

19. (currently amended) A pedestrian navigation system comprising:

a pedestrian navigation device that is constituted in a mobile phone for navigating a pedestrian route;

a server that provides the said pedestrian navigation device with navigation information; and

a network that permits the said pedestrian navigation device and the said server to communicate with each other, characterized in that:

the said pedestrian navigation device is the pedestrian navigation device according to ~~any of claims 16 to 18~~ claim 16.

20. (currently amended) A pedestrian navigation system comprising:

a pedestrian navigation device that is constituted in a mobile phone for navigating a pedestrian route;

a server that provides the said pedestrian navigation device with navigation information; and

a network that permits the said pedestrian navigation device and the said server to communicate with each other, characterized in that:

the said pedestrian navigation device is the pedestrian navigation device according to ~~any of claims 16 to 18~~ claim 16, and downloads a voice pattern of the guide voice from the said server.

21. (currently amended) The pedestrian navigation system according to claim 19 ~~or claim 20~~, characterized in that the said network is the Internet or an intranet.

22. (original) A pedestrian navigation method for navigating a pedestrian route, characterized by the following steps:

(A) position information is acquired from the GPS system;

(B) the acquired position information is analyzed to calculate the user's present position;

(C) present position information is calculated based on the calculated present position of the user and map information received from a server that provides navigation information;

(D) vibration is generated based on the calculated present position information; and

(E) a guide voice is outputted based on the calculated present position information.

23. (original) A pedestrian navigation method for navigating a pedestrian route, characterized by the following steps:

(A) position information is acquired from the GPS system;

(B) the acquired position information is analyzed to calculate the user's present position;

(C) present position information is calculated based on the calculated present position of the user and map information received from a server that provides navigation information;

(D) vibration is generated based on the calculated present position information; and

(E) a guide voice is outputted based on the calculated present position information after a predetermined delay from the time the vibration is generated.

24. (currently amended) The pedestrian navigation method according to claim 22 ~~or claim 23~~, characterized in that delaying means is provided to start the voice guide after a predetermined delay from the time the vibration guide is generated.

25. (currently amended) The pedestrian navigation method according to claim 22 ~~or claim 23~~, characterized in that either a soundless (voiceless) section, a sound effect, or a melody for a predetermined period is added at the onset of the said guide voice.

26. (currently amended) A program that induces a mobile phone to navigate a pedestrian route, wherein the mobile phone performs the function of the pedestrian navigation device according to ~~any of claims 16 to 18~~ claim 16.

27. (currently amended) A program that induces a mobile phone to navigate a pedestrian route, wherein the mobile phone performs the function of processing carried out by means of the pedestrian navigation method according to claim 22 ~~or claim 23~~.